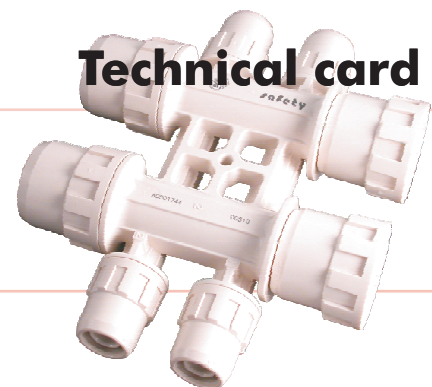


## art. 21658 COPLANAR MANIFOLD safety-pol

modular coplanar manifold Ø 26 with outlets Ø 16



### DESCRIPTION

The coplanar manifold **safety-pol** has been designed and made for sanitary installations and radiator heating/air conditioning systems included in the wide range of **safety** fittings; each module is easy and quick to assemble with a quantity of outlets from the circuits foreseen by the thermo technical project. An important feature of the coplanar manifolds **safety-pol** is a balanced distribution of the fluids (delivery/return, hot/cold water) without gathering or overlapping pipes.

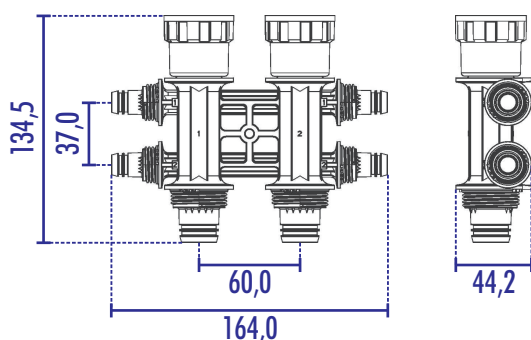
The coplanar manifolds **safety-pol**, thanks to a detailed study of the constructive parts, offer a wide range of technical advantages that makes them different from any other distribution manifold: coning of the parts that are to be assembled guarantees absolute hydraulic tightness at all temperatures and pressures; the end stroke lock allows perfect alignment of the outlets and staticity of the assembled modules. More fluid and less load loss distinguish its functional performance.

The coplanar manifolds **safety-pol** can be placed in inspection cases (art. 71458 and 71460) with special brackets (art. 73586).

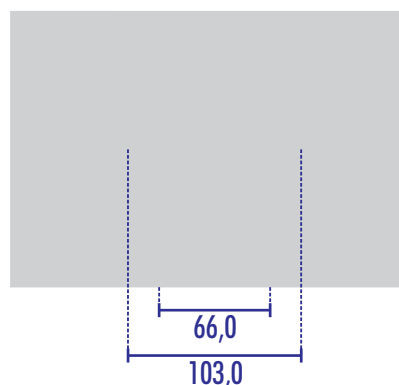
### PRODUCT SPECIFICATIONS

#### DIMENSIONS (in mm.)

##### SINGLE MODULE



##### ASSEMBLED MODULES



### TECHNICAL FEATURES

- Material:**
- body of the fitting: PPSU - Polyphenylsulfone
  - cap: PPSU - Polyphenylsulfone
  - o-ring: EMDP (Ethylene Propylene) peroxide shore 70
  - compensating rings: PA 66 - Nylon

- Colour:**
- manifold: ivory (with dark grey marking)
  - cap: ivory
  - o-ring: black
  - compensating rings: ivory

- Weight:**
- manifold: 159.0 g
  - caps: 87.6 g (no. 4 of Ø 16 and no. 4 of Ø 26)
  - o-ring: 1.9 g (no. 8 of Ø 16 and no. 4 of Ø 26)
  - compensating rings: 4.6 g
  - total: 253.1 g

**Marking (manifold):** company logo, trade name, production lot, basic material code, progressive print number.

**Operating temperature:** between -0°C\* and 95°C  
(\*with the help of glycol even down to -15°C)

**Maximum operating pressure at 95°C:** 10 bar

**Tensile strength:** 70 N/mm<sup>2</sup>

**Bending modulus:** 2400 N/mm<sup>2</sup>

**Impact strength:** 694 J/m

**Lengthening to rupture:** from 60 to 120%

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#### OPERATION

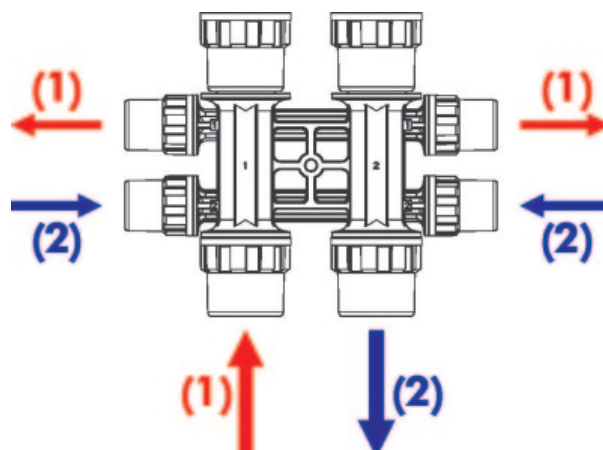
The figure on the rhs shows **safety** coplanar manifold operation.

In order to facilitate use, the numbers 1 and 2 are imprinted on outlets/inlets on both ends of the fittings and indicate:

- 1) **DELIVERY**

- 2) **RETURN**

**NB:** delivery and return can be inverted (in relation to the diagram on the rhs) according to the technical requirements.



#### REFERENCE STANDARDS (CONFORMITY)

The **safety-pol** coplanar manifolds are designed and manufactured by **aquatechnik** in compliance with the Quality management system UNI EN ISO 9001:2000 (Certification Nr. IIP 640 - IQNET IT-16323). As every safety fitting, also the coplanar manifolds are manufactured according to the most severe normes and are certified by the most important national and foreign institute, among which: DVGW no. 04-0389-W / Germany), SKZ (no. 46705/01 - II, anno 2001 / Germany), HY (Germany); NSF (standard 61 and 14 / USA); KIWA (no. K40531 / Holland); IIP (no. 365 / Italy), RINA (no. MAC409506CS / Italy); AENOR (no. 003860 / Spain), ITB (no. AT-15-7359/2007 /), BIGGFORSK (no. 1192 / Norway); LNEC (Portugal); CSTB (no. 927-110-1308 e 926-157-1308 / France).

#### MODULE CUSTOMIZATION AND ACCESSORIES

The completeness of the accessory range for **safety** manifolds allows to customize the coplanar manifolds according to the specific requirements of each system.

The main couplings are analysed below.

ADDITIONAL MODULES		
Item	Description	Figure
21658	Additional safety-pol coplanar manifold module Ø 26 with outlets Ø 16	
74005	Multi-calor pipe Ø 16	
74505	Multi-eco pipe Ø 16	
75005	Polipert pipe Ø 16	

Besides the **multi-calor pipe**, also the **multi-eco**, **polipert** and pipes in PE-X can be connected to the outlets of the coplanar **safety-pol** manifolds\*.

\*NB: using the PE-X and PE-RT pipes with safety fittings is allowed only with diameters wich are the same of the **multi-calor** pipes. For more information, please, contact the technical department in **aquatechnik**.

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### VENT UNIT ASSEMBLY

Item	Description	Figure
21064	Reducing cap Ø 26 with 1/2" thread	
92322	Automatic vent valve with 1/2" Male thread	
92332	Manual vent valve with 1/2" Male thread	

Either the automatic valve (art. 92322) or the manual valve (art. 92332) can be assembled on reducing cap (art. 21064) when it is assembled on the safety-pol coplanar manifold.

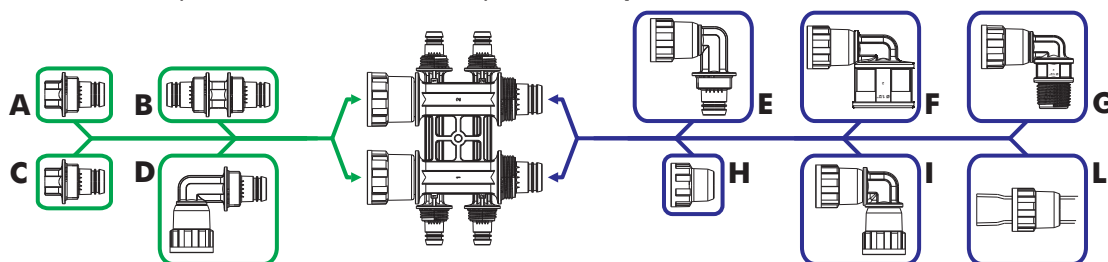
### SPECIAL SAFETY FITTINGS

Special fittings of the **safety** range allow to customize the connections to the **safety-pol** coplanar manifolds as shown below.

**A** - male cap,  
**C** - threaded male reducing cap 1/2",  
**F** - female/female threaded elbow,  
**H** - female cap,  
**L** - multi-calor pipe/multi-eco/polipert/PE-X\*

**B** - pipe coupling,  
**D/E** - male/female elbow,  
**G** - male/female threaded elbow,  
**I** - female/female 90° elbow,

\*NB: using the PE-X and PE-RT pipes with safety fittings is allowed only with diameters which are the same of the multi-calor pipes. For more information, please, contact the technical department in **aquatechnik**.



### FLOW RESISTANCES

More fluid flow capacity and reduced flow resistance are the most evident ones among the many performance advantages achieved by the thermal-sanitary systems that mount **safety fittings**, and **safety-pol** coplanar manifolds which are undoubtedly better than all the other types of fittings. These values are more evident and experimental tests, performed, by accredited National Laboratories, on others figures of the range furtherly confirm what has been proved by the Manufacturer.

Therefore the flow resistance values of **safety-pol** coplanar manifolds will be published as soon as the experimental tests of the laboratory will be completed.

### FIELD OF USE

- **civil buildings:** high temperature heating systems (radiators), heating, cooling, garden irrigation, hygiene-sanitary services;
- **industrial:** high temperature heating systems (radiators), hot-air ovens, thermostrips, compressed air, hydraulic circuits for machinery, heating and air conditioning, hygiene-sanitary services;
- **service-producing sector:** laboratories, medical doctor's offices, public places, religious buildings, stock farming, greenhouses, etc.

**art. 21658**  
**COPLANAR MANIFOLD**  
**safety-pol**

modular coplanar manifold Ø 26 with outlets Ø 16

## LAYING/INSTALLATION

For connection to the water supply we recommend the use of **multi-calor, multi-eco, polipert, PE-X\* Ø 26** pipes or others with the same flow capacity. Connection to manifold headings are to be made with **safety** fittings. **Do not connect standard common use threads (gas, DIN, etc.) to safety threads.** Connection to gas thread (or standard) can be made with fittings of the **safety** range (threaded male and female joints, female joints with male and female thread, elbows with male and female thread, female elbows with male and female thread, reducer caps). We recommend to house the **safety-pol** coplanar manifolds in the relevant metal cases (provided with rhs/lhs vertical/horizontal inlets/outlets) that can be positioned in the masonry as foreseen by the thermo technical project. Once the installation is over, we recommend to avoid that the coplanar manifolds are on contact with paints, solvents, thinner, white spirit, benzene and other chemical compounds.

## NOTES

- The **safety-pol** coplanar manifolds, just like all the other plastic products are subject to chemical etching; we recommend to prevent contact even if for a short period.
- Male/female threaded parts (**safety** thread) of the manifolds **are not directly compatible** with traditional gas thread; we recommend to use suitable adapters manufactured by the company.
- The hydraulic testing of the system is to be performed in compliance with the standards in force once the installation is over.

## SPECIFICATION ITEMS

The distribution of various heating/cooling circuits will begin from the coplanar distribution manifolds (PPSU plastic material with blocking device with toothed end) housed in the special cases that can be built-in, fed with multilayer pipes in compliance with Standards 10954-2 with distinguishing No. 282.

System

**safety**  
 patented by aquatechnik

**Just one fitting  
 and one equipment  
 for all types of pipes \***

**PE-X/Al/PE-X**

**PE-X**

**PE-RT**

\*NB: using the PE-X and PE-RT pipes with safety fittings is allowed only with diameters which are the same of the multi-calor pipes. For more information, please, contact the technical department in aquatechnik.



**aquatechnik®**

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**safety**  
 System